

## 3.3 Triangle Inequality Theorem Practice

Date \_\_\_\_\_ Period \_\_\_\_\_

**State if the three numbers can be the measures of the sides of a triangle.**

1) 9, 6, 3

2) 9, 7, 7

3) 5, 3, 8

4) 35, 53, 25

5) 26, 13, 50

6) 33, 35, 7

**Two sides of a triangle have the following measures. Find the range of possible measures for the third side.**

7) 49, 39

8) 48, 33

9) 48, 32

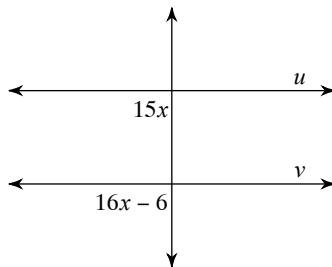
10) 50, 32

11) 49, 27

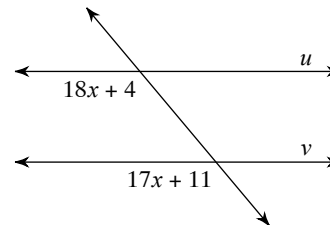
12) 37, 37

**Find the value of  $x$  that makes lines  $u$  and  $v$  parallel.**

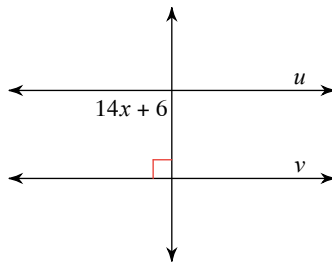
13)



14)



15)

**Find the other endpoint of the line segment with the given endpoint and midpoint.**

16) Endpoint:  $(-4, -3)$ , midpoint:  $(8, 4)$

17) Endpoint:  $(6, -5)$ , midpoint:  $(10, -10)$

## 3.3 Triangle Inequality Theorem Practice

Date \_\_\_\_\_ Period \_\_\_\_\_

**State if the three numbers can be the measures of the sides of a triangle.**

1) 9, 6, 3

No

2) 9, 7, 7

Yes

3) 5, 3, 8

No

4) 35, 53, 25

Yes

5) 26, 13, 50

No

6) 33, 35, 7

Yes

**Two sides of a triangle have the following measures. Find the range of possible measures for the third side.**

7) 49, 39

$10 < x < 88$

8) 48, 33

$15 < x < 81$

9) 48, 32

$16 < x < 80$

10) 50, 32

$18 < x < 82$

11) 49, 27

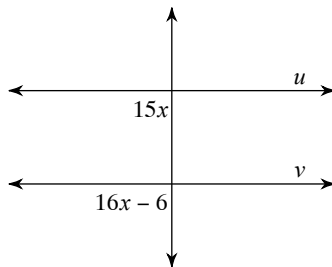
$22 < x < 76$

12) 37, 37

$0 < x < 74$

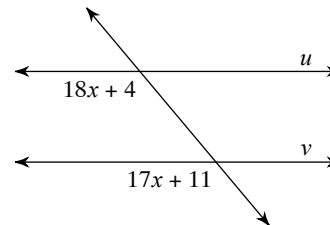
**Find the value of  $x$  that makes lines  $u$  and  $v$  parallel.**

13)



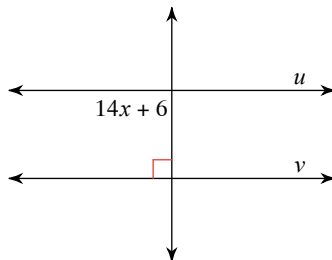
6

14)



7

15)



6

**Find the other endpoint of the line segment with the given endpoint and midpoint.**

16) Endpoint:  $(-4, -3)$ , midpoint:  $(8, 4)$

$(20, 11)$

17) Endpoint:  $(6, -5)$ , midpoint:  $(10, -10)$

$(14, -15)$